ABSTRACT

DATA PROCESSING APPARATUS AND METHOD

An encoding data processing apparatus generates at least one water marked
version of an original item of material formed by introducing one of a predetermined
set of code words into a copy of the original material item. The apparatus has a
bandwidth adaptation processor operable to adapt a bandwidth of the code word to at
least part of a bandwidth of the original material item, and an encoder operable to
combine the bandwidth adapted code word with a copy of the original material item.

The probability of correctly detecting a code word is improved by combining
the code word with a part of the bandwidth of the material item. As a result, if the
material is transformed in some way the code word may still be detected. For
example, by embedding the code word into the low frequency temporal and spatial
components of the material an improved resistance to temporal or spatial distortion is
provided. As a result, an improvement in the probability of correctly detecting a code
word is provided.

[Fig 1 and 2]